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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,191	02/12/2002	John A. Szymbor	EH-10586	4463
30188	7590	12/30/2005		
PRATT & WHITNEY 400 MAIN STREET MAIL STOP: 132-13 EAST HARTFORD, CT 06108			EXAMINER PICKARD, ALISON K	
			ART UNIT 3673	PAPER NUMBER

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/074,191

Applicant(s)

SZYMBOR ET AL.

Examiner

Alison K. Pickard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21,24-30 and 32-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21,24-30 and 32-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: 2pg. dictionary copies.

**DETAILED ACTION**

1. In view of the brief filed on 8-12-05, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing

below: 

Brian Glessner.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-5, 7-21, 32-36, and 38-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Howe (5,183,197).

Howe discloses a bristle arrangement and brush seal. The bristle arrangement “consists essentially of” (note that this phrase is being treated in a similar manner as “comprising” as per MPEP direction) a plurality of wire (metal) bristles grouped as tufts 11 arranged in an arc and circle. A “joint” 15 secure the groups of tufts. The joint is considered a “weld joint” in that the bristles are “united closely” (see attached Webster’s Dictionary definition). The bristle arrangement is subsequently combined with plates 16 and 17 to form a brush seal (see col. 3:65-4:8). The feature that holds the bristles together “consists” of a “joint” 15.

4. Claims 1-5, 7-21, 32-36, and 38-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Datta (6,536,773).

Data discloses a bristle arrangement comprising plural metallic bristles 112 arranged in a length and secured by a joint (see either fig 5b or 6a). The bristles can be arranged in tufts (fig. 9). The joint is a weld joint. The bristle arrangement is subsequently combined with plates (see

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Fig. 10, housing 314 has two “plates”) to form a brush seal. The feature that holds the bristles together “consists” of a “joint” 125/126.

5. Claims 1-4, 7-10, 12-15, 17-20, 32-35, and 38-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Flower (6,681,486).

Flower discloses a bristle arrangement comprising plural metallic bristles 25 arranged in a length and secured by a weld joint (at 26 or 27). The length defines an arc/circle. The feature that holds the bristles “consists” of a welded joint 27.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 24-29, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howe in view of Atkinson (5,106,104).

Howe discloses a discrete bristle arrangement 11/15 and discrete plates 15 and 16. the arrangement is joined with the plates to make a brush seal (col. 3:65-4:8). However, Howe does not disclose providing discrete plates and discrete bristle arrangements in a stack to create a multiple stage brush seal. Atkinson teaches providing plural brush seals in a stack to create a multiple stage brush seal to ensure an equal pressure drop across each stage and improve the sealing function of the arrangement. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the plural brush seals of Howe in a

stack as taught by Atkinson to create a multi-stage brush seal that improves sealing even under high pressures.

8. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howe in view of Atkinson in view of Millener (5,496,045).

Neither Howe nor Atkinson appears to disclose a windage cover. Millener teaches using a windage cover on the front plate to reduce disturbing forces that may lift bristles from the shaft. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to improve the seal by using a windage cover as taught by Millener to reduce disturbing forces.

#### *Response to Arguments*

9. Applicant's arguments filed in the brief have been fully considered but they are not persuasive and are considered moot in view of the new grounds of rejection.

Applicant's arguments relating to "consisting essentially of" are unpersuasive. First, claim 1, for example, only requires a "joint." The term 'joint' is not limited to only one specific element and can actually comprise two or more elements as seen in the definition of the word "joint" (copy of Webster's). So, it is submitted that Datta, for example, not only comprises a "joint" but CONSISTS of a "joint" in that the at least one rail 126 and weld 125 join (or hold) the bristles. Second, there is no disclosure limiting the term "joint" to only a weld. Applicant's specification does not properly support a joint of only bristles and a weld. The specification uses the term "comprising" and states that other methods (i.e. other than a weld) can be used (see paragraphs 45 and 60). Therefore, Applicant cannot effectively argue that the rails of Datta materially affect the invention when there is not sufficient support that such rails cannot be

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present. (Applicant is cautioned in amending the specification to limit the scope of a "joint" as such may be considered new matter).


Regardless, Howe and Flower clearly disclose bristles connected only by a weld and THEN joined to plates. Cunningham '047 also teaches that bristles can be joined by various art equivalent methods such as weld, epoxy or mechanical sheath.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 571-272-7062. The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on 571-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Alison K. Pickard  
Primary Examiner  
Art Unit 3673

AP